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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,722	11/06/2006	Dallas James	1209.74842	4655
24978	7590	11/10/2008	EXAMINER	
GREER, BURNS & CRAIN 300 S WACKER DR 25TH FLOOR CHICAGO, IL 60606			KENNEDY, JOSHUA T	
ART UNIT	PAPER NUMBER			
		3679		
MAIL DATE	DELIVERY MODE			
11/10/2008	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,722	Applicant(s) JAMES, DALLAS
	Examiner JOSHUA T. KENNEDY	Art Unit 3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 18 August 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 30-51 is/are pending in the application.
- 4a) Of the above claim(s) 42 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 30-41 and 43-51 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-166/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Claims 1-29 have been cancelled.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 30-41 and 43-51, drawn to a guardrail, classified in class 256, subclass 13.
- II. Claim 42, drawn to a method of constructing a guardrail, classified in class 29, subclass 428.

The inventions are distinct, each from the other because of the following reasons:

Newly submitted claim 42 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: the product as claimed can be made by another and materially different process (MPEP § 806.05(f)), such as statically securing multiple rail sections together, i.e., merely placing them together as opposed to slidably interconnecting them.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 42 has been withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claims 30-41 and 43-51 have been examined.

Examiner notes that, despite the similarities of the claims and the statements made by the Applicant in the remarks section (for example in the first paragraphs of pages 20 and 22 and the second paragraph of page 24), Claims 30-51 have not yet been examined, thus do not "stand rejected" at all. Regardless the arguments have been taken into consideration and responded to below.

Drawings

The drawings were received on 8/18/2008. These drawings are not acceptable. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because of several informalities due to the severe lack of clarity in the drawings:

1. It is unclear as to how the cable routing means is configured to form a tortuous path and is further unclear as to how the cables (15 and 15a) extend from the ground through the aforementioned path and attach to the rail. There is nothing that **shows** the details of this path and there is no point 11a shown in the drawings where the cables attach to the rail. The specification may discuss the path of the cables, but these paths are not shown in the drawings. Under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the details of the path must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

2. Figures 6A and 6B are generally unclear. If they are intended to be plan views of Figure 5, where are the apertures S1, P1 and P2 if Figures 6A and 6B?
3. Figure 1C is improper since it is not clear as to where exactly the apertures are located in the body. Are they supposed to be extending through the crossbars? Or are they intended to be above and below the crossbars? In addition, why is there no thickness to the body?

4. What are the dashed lines in Figures 4, 6A and 6B indicating?

Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30-41 and 43-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It remains unclear as to what structure an "impact head" is intended to set forth. By the definition set forth in page 21 of Applicant's response, a vehicle would need to strike the guardrail first to determine what the impact head is. What if a vehicle struck an intermediate post first, is that the impact head? Can the impact head be located anywhere on the guardrail? Further, there is no structural cooperative relationship between the impact head and the cable routing means set forth in claim 50, how does the bar member cooperate with the impact head and the cable(s)?

Further, what structure of the cable routing means defines the tortuous path, specifically "one or more turns" (Claims 45 and 46), "at least one substantially 180 [degree] turn" (Claim 47) or "at least one substantially S or Z-shaped turn" (Claim 48)?

It appears as if it is the cables themselves, not the routing means that would define the tortuous path created by the cable and it is the cables acting against the routing means that would provide the frictional resistance. According to the disclosure, the routing means merely provides apertures through which the cables can pass. Therefore, it is unclear as to how a theoretical path within a cable routing means, that is structurally undefined, can provide frictional resistance. In other words, the path itself cannot be defined until a cable is routed through that path.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 30-37, 43-49 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Rambaud (US Patent 4,730,810).

As to Claim 30, as best understood Rambaud discloses an impact head (Examiner considers the impact head to comprise both the sheet 1 and the shock absorbing means 35) including a cable routing means (Fig 3A) capable of forming a tortuous path through which a cable (34) can be threaded, wherein the tortuous path itself provides sufficient frictional resistance to movement of the cable during impact of a force to facilitate impact energy dissipation (Col 3, Lines 64-68 and Col 4, Lines 1-3).

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As to Claim 31, as best understood Rambaud discloses the cable routing means includes a member having two or more cable entry ports through which a cable may be threaded (Fig 3A).

As to Claim 32, as best understood Rambaud discloses one or more cables (34) threaded through the cable routing means.

As to Claim 33, as best understood Rambaud discloses the cable routing means is configured so that when a force is applied to the impact head the cables are forced through the cable routing means, such that resistance to cable movement provided by the tortuous cable path limits movement of the impact head caused by the force (Col 3, Lines 64-68 and Col 4, Lines 1-3).

As to 34, as best understood Rambaud discloses the cables being under tension (Col 3, Line 66).

As to Claim35, as best understood Rambaud discloses at least one end of the cables being anchored to the ground (32A).

As to Claim36, as best understood Rambaud discloses one end of the cables being anchored to the ground (32A) and a remaining end of the cables is anchored to a rail and/or a support post (2; via 3a).

As to Claim 37, as best understood Rambaud discloses the impact head being positioned substantially between the two anchor points (2a, 32a; Fig 1).

As to Claim 43, as best understood Rambaud discloses the tortuous path being configured to absorb at least a portion of the kinetic energy of an impact on the impact head (Col 3, Lines 64-68 and Col 4, Lines 1-3).

As to Claim 44, as best understood Rambaud discloses the tortuous path being any path that provides sufficient friction to slow down the movement of the impact head during an impact on the impact head (Fig 3a).

As to Claim 45, as best understood Rambaud discloses the tortuous nature of the passage through the cable routing means being provided by one or more turns through which the cable may be threaded (Fig 3a).

As to Claim 46, as best understood Rambaud discloses the tortuous nature of the passage through the cable routing means being provided by one or more turns of greater than substantially 90° through which the cable may be threaded (Fig 4F).

As to Claim 47, as best understood Rambaud discloses the cable routing means including at least one substantially 180° turn (Fig 3a).

As to Claim 48, as best understood Rambaud discloses the cable routing means includes at least one substantially S or Z-shaped turn (Fig 4F).

As to Claim 49, as best understood Rambaud discloses the cable routing means is adapted so that in use and during a collision or impact with the impact head, the cable is forced through the cable routing means, where resistance to cable movement provided by the tortuous cable path substantially facilitates impact energy dissipation (Col 3, Lines 64-68 and Col 4, Lines 1-3).

As to Claim 51, as best understood Rambaud discloses the tension of one or more cables can be adjusted so as to give a suitable resistance to movement (via 37a, 37b).

Claims 38-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Bronstad (US Patent Application Publication 2005/0077508).

As to Claim 38, as best understood Bronstad discloses a guardrail comprising:
a plurality of support posts (72-76);
a plurality of rails (20) slidably interconnected and mounted directly or indirectly to the posts;
at least one cable (52b) wherein at least one end of the at least one end of the cable is fixed (84), wherein the guardrail includes an impact head (22) with a cable

routing means (Fig 5A and 54a, 54b) capable of forming a tortuous path through which a cable can be threaded, wherein the tortuous path itself provides sufficient frictional resistance to movement of the cable during impact of a force to facilitate impact energy dissipation (Examiner notes that the routing means merely has to be "capable of forming a tortuous path". By the Applicant's definition, simply having a single hole through which a cable could be threaded would suffice, as long as, if it were impacted, friction would dissipate some energy. Figure 5A discloses a cable being routed through a hole in an impact head).

As to Claim 39, as best understood Bronstad discloses both ends of the at least one cable are fixed in relation to the ground (Fig 2).

As to Claim 40, as best understood Bronstad discloses the end of the at least one cable located farthest from the cable routing means is anchored to a rail and/or a support post (Fig 1)

As to Claim 41, as best understood Bronstad discloses one or more frangible posts (Figs 15-16) comprising:

a first member substantially orthogonally connected to a second member,
wherein the at least one first member has a region of weakness (80).

Allowable Subject Matter

Claim 50 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The primary reason for the allowance of the claims is that the prior art of record neither teaches nor suggests the inclusion of the limitation of an impact head of a guardrail having a "cable routing means comprises a bar member having a longitudinal axis and including a cable entry port adapted to allow the cable to pass directly therethrough when said bar member is in a first non-cable-gripping orientation, and wherein upon rotation of said bar member through at least 90° about said longitudinal axis, a second cable-gripping orientation is reached" (Claim 28). The closest prior art of record, Rambaud and Bronstad taken as a whole, disclose a fence system significantly as claimed, but does not provide any teaching, suggestion, or motivation to modify the prior art as such. There is no cogent reasoning that is unequivocally independent of hindsight that would have led one of ordinary skill in the art at the time the invention was made to modify the prior art to obtain the applicant's invention.

Response to Arguments

Applicant's arguments filed 8/18/2008 have been fully considered but they are not persuasive.

Applicant argues:

"Although the shock absorbing means includes a tortuous path for a cable, it is a slack end of the cable. Energy is absorbed through the effort of pulling a load

created by the slack rope 34a through rotating sheaves. The fact that the sheaves rotate severely reduces the friction. In contrast, amended claim 1 features a tortuous path that *itself* provides sufficient frictional resistance to absorb the impact of an impact. This feature is not taught by Rambaud" (Page 22)

Examiner respectfully disagrees. As advanced above it remains unclear as to how a theoretical path within a cable routing means, that is structurally undefined, can *itself* provide frictional resistance when it is the cable acting against the cable routing means that provides the frictional resistance. As is such, Rambaud states that "the sliding of the cable 34 under tension is slowed down by friction...the tension energy is dissipated by friction of the cable 34 in the means 35" (Col 3, Lines 66-67). In other words, the tortuous path through which the cable is threaded within the impact head creates a frictional force to dissipate energy caused by an impact as is required by the claims.

Applicant further argues:

"Rambaud fails to show or suggest the use of two or more cable entry ports in Fig. 3A. Rambaud teaches an entry and an exit. Slack is taken from the cable end 34A, not vice versa. Even if the device is capable of use in the opposite direction, it still has only one entry and exit" (Page 22)

Examiner respectfully disagrees. All the claim limitations require are two entry ports. The claims do not require that the cable actually pass through both port simultaneously. Figure 3A of Rambaud shows at least two separate ports on either side of pulley 356 (the first between 356 and 355 and the second between 356 and 353).

Applicant further argues:

"Rambaud fails to suggest that resistance to cable movement provided by the tortuous cable path limits movement of the impact head as featured in claim 33. The shock-absorbing means of Rambaud is held in position by the coupling strap 350 that is anchored into the ground. It cannot move due to movement of the cable and thus cannot teach this feature" (Page 23)

Examiner respectfully disagrees. As advanced in the rejection above the impact head includes the sheet (1) in combination with the shock-absorbing means (35). Rambaud teaches that "When abrupt tension is exerted on the cable 34, a length of reserve loop 34a is yielded via the shock-absorbing means 35 and the tension energy is dissipated by friction of the cable 34 in the means 35" (Col 3, Lines 67-68 and Col 4, Lines 1-2), therefore as soon as the loop is yielded and the impact energy dissipated, the cable within the shock-absorbing means limits further movement of the impact head.

Applicant further argues:

"Rambaud fails to suggest that one of the cables is anchored to the ground. As shown in Fig. 2A of the reference, the cable that is anchored to the ground does not pass through the impact head. The cable that goes through the tortuous path forms a loop and is not anchored to the ground. The text of Rambaud states only that the cables are connected to the anchorages" (Page 23)

Examiner respectfully disagrees. The cables are anchored to the ground via the shock-absorbing means and the cable 350.

Applicant further argues:

"Rambaud fails to disclose slowing down movement of the impact head. Arguments asserted above with respect to claim 4 are reasserted here" (Page 23)

Examiner respectfully disagrees. Arguments asserted are reasserted here. The impact head includes the sheet (1) in combination with the shock-absorbing means (35). Rambaud teaches that "When abrupt tension is exerted on the cable 34, a length of reserve loop 34a is yielded via the shock-absorbing means 35 and the tension energy is dissipated by friction of the cable 34 in the means 35" (Col 3, Lines 67-68 and Col 4, Lines 1-2).

Applicant further argues:

"Rambaud fails to reveal tensioning of anchorages 37a and 37b in any way. The anchorages are mentioned only in col. 4, lines 35-36, as being connected to cable 34. No adjustment of 37a and 37b are disclosed, be it adjustment of tension or any other feature" (Page 24)

Examiner respectfully disagrees and notes that the previous Office action never relies on anchorages 37a and 37b to teach any of the claim limitations.

As to Claims 38-40 and 42, Applicant argues:

"The Examiner has interprets the rails 20 as being both the rails and the impact head. This interpretation is inconsistent with Applicant's claims and specification. Applicant respectfully suggests that the rejection should be withdrawn and the

claims be allowed. The impact head of Applicant's claims is the central feature of the invention, yet the Examiner has completely discounted its presence. Merely finding some of the functions of the impact head, such as threading of the cable through the rail, does not make it equivalent to the impact head. Bronstad teaches the use of cable anchor brackets 54a and 54b. There is no teaching or suggestion that the cable anchor brackets form a tortuous path" (Pages 24-25)

Examiner respectfully disagrees and points out that the rejection is clarified above. Initially it was intended that not the entire rail section, but the ends of the rail section (20; Examiner considers the section leading up to the first post 84 to be that end rail section) in concert with the end portions (22) that comprise the "impact head". As is shown in Figures 5A and 5B and also in Figures 1 and 2 (at 54A and 54B) the cables are lead through a path having multiple apertures which is capable of being tortuous.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA T. KENNEDY whose telephone number is (571)272-8297. The examiner can normally be reached on M-F: 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on (571) 272-7087. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joshua T. Kennedy/
Examiner, Art Unit 3679
10/30/2008

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679